REMARKS

Reconsideration of the above-identified application in view of the amendments above and the remarks following is respectfully requested.

Claims 1-84 are in this case. Claims 2-6, 8-16, 18-21 and 23-84 were withdrawn under a restriction requirement as drawn to a non-elected invention. Claims 1, 7, 17 and 22 have been rejected.

35 U.S.C. § 103(a) Rejection

The Examiner has rejected claims 1, 7, 17 and 22 under 35 U.S.C. § 103(a) as being unpatentable over U.S. Pat. No. 6,683,048 to Blaschcuck in view of Stedman's Medical Dictionary. The Examiner's rejections are respectfully traversed.

The Examiner states that Blaschcuck et al. teach a method of identifying a hair growth modulator that is also a cadherin modulator. The Examiner further states that Blaschcuck et al. do not expressively teach that the cadherin is P-cadherin, however, Stedman's Medical Dictionary teaches that P-cadherin is a cadherin expressed in a variety of epithelial cells and has a role in cellular morphogenesis. The Examiner thus concludes that Blaschcuck et al. intrinsically teach a modulator of P-cadherin.

Applicant disagrees with the Examiner that U.S. Pat. No. 6,683,048 intrinsically teaches direct P-cadherin inhibition.

U.S. Patent No. 6,683,048 teaches methods and peptides for regulating beta-catenin. Indeed as is clearly stated in the "summary of the invention" section of this patent and elsewhere, Blaschcuck et al. clearly identify beta-catenin as the target for modulation and provide examples of several approaches for effecting such modulation, including examples of modulating agents (column 3, lines 44-50):

> "As noted above, the term "modulating agent," as used herein, refers to a molecule comprising one or more of (1) a beta-catenin HAV motif, (2) a peptide analogue or peptidomimetic thereof or (3) an antibody or antigen-binding fragment thereof that specifically binds to such a motif. A modulating agent is further capable of disrupting interactions between alpha-catenin and beta-catenin, as described herein. "

Although this patent briefly mentions cadherins as possible components of one catenin-associated pathways, it is clear from the above excerpt that this patent teaches beta-catenin modulation and does not teach direct cadherin inhibition, and in particular direct inhibition of P-cadherin. As a result, Blaschcuck et al. do not describe or suggest cadherin-specific antisense oligonucleotides, antibodies or small molecule inhibitors.

Thus, it is clear that U.S. Pat. No. 6,683,048 does not teach direct cadherin modulation but rather beta-catenin modulation which can be dependent of cadherin activity [see, for example, Trends Biochem Sci. 1994 Dec;19(12):538-42 "Beta-catenin: a common target for the regulation of cell adhesion by Wnt-1 and Src signaling pathways" Hinck L, Nathke IS, Papkoff J, Nelson WJ]. In fact, Blaschcuck et al. repeatedly emphasize that "increasing the level of free beta-catenin in the cytoplasm have potential for stimulating Wnt-mediated signal transduction" (end of Background section). It will be appreciated that since beta-catenin is a key downstream effector of this pathway which is not associated with cadherin activity.

It will be appreciated that this beta-catenin targeting also extends to screening assays mentioned by this patent. Thus, U.S. Pat. No. 6,683,048 does not teach or suggest methods of screening for P-cadherin-specific modulators, but rather describes assays for measuring the "effect of a modulating agent on beta-catenin mediated gene transcription" (column 13, lines 26-27). It will be appreciated that any cadherin modulation mentioned with respect to screening assays (columns 13-14) relates to a possible downstream effect of an assayed beta-catenin inhibitor and not to any direct cadherin inhibition of assayed inhibitors.

The present invention is of methods of identifying a molecule which directly modulates P-cadherin and is functional as a hair growth modulator. As is described by the instant specification, such a modulator can be P-cadherin specific antisense oligonucleotide, an antibody or a small molecule effector (e.g. peptide).

Since U.S. Patent No. 6,683,048 does not describe or mention direct cadherin modulation or screening for cadherin-specific modulators which can function as hair growth modulators, and since Stedman's Medical dictionary merely teaches that P-cadherin is an epithelial cell expressed cadherin, it is Applicant's strong opinion that the teachings of Blaschcuck et al. combined with Stedman's Medical Dictionary would not motivate one of ordinary skill in the art to screen for P-cadherin specific inhibitors which are functional as hair growth inhibitors.

In view of the above amendments and remarks it is respectfully submitted that claims 1, 7, 17 and 22 are now in condition for allowance. Prompt notice of allowance is respectfully and earnestly solicited.

Respectfully submitted,
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Enclosed:
Petition for Extension of Time (1 Month)